AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method of determining a modulation type of a received signal, the method comprising:

beginning demodulation of the received signal using components associated with each potential type of modulation;

providing an identification value to a voting block for each potential type of modulation based on the received signal; and

using a technique in the voting block to determine the modulation type, wherein the technique is based at least on the identification values and including determining a strength of the received signal.

2. (Original) The method of Claim 1, wherein the identification value includes a normalized correlation value based on characteristics of the type of modulation.

3. (Original) The method of Claim 1, wherein the identification value includes an absolute modulation-specific correlation value.

4. (Cancelled)

5. (Currently Amended) The method of Claim 4 1, wherein if the received signal is equal to or less than a predetermined threshold value, thereby characterizing the received signal as weak, then the identification value includes a normalized correlation value based on characteristics of the type of modulation.

6. (Original) The method of Claim 5, wherein if the received signal is greater than the predetermined threshold value, thereby characterizing the received signal as strong or intermediate, then the identification value includes a modulation-specific received signal strength indicator (RSSI).

7. (Original) The method of Claim 6, wherein the modulation-specific RSSI is computed by:
    performing a noise floor measurement; and
    determining the strength of the received signal above the noise floor measurement.

8. (Original) The method of Claim 6, wherein the technique includes computing a bias value, wherein the bias value adjusts a probability of choosing a particular modulation.

9. (Original) The method of Claim 8, wherein the bias value is based at least on an environment of the received signal.

10. (Original) The method of Claim 9, wherein the environment includes multipath.

11. (Original) The method of Claim 1, wherein if the received signal is equal to or less than a predetermined threshold value, thereby characterizing the received signal as a weak signal, then a determination can be made whether a raw RSSI is greater than a threshold RSSI.

12. (Original) The method of Claim 11, wherein if the received signal is greater than the predetermined threshold value, thereby characterizing the received signal as a strong signal, or if the raw RSSI is greater than the threshold RSSI,

(SN: 10/698,666)

thereby characterizing the received signal as an intermediate signal, then the identification value includes a modulation-specific correlation value.

13. (Original) The method of Claim 11, wherein if the raw RSSI is less than the threshold RSSI, then the identification value includes a normalized correlation value.

14. (Currently Amended) A method of conserving power while optimizing signal demodulation in a wireless local area network (WLAN) receiver, the method comprising:
    beginning demodulation of a received signal using receiver components associated with each potential type of modulation;
    providing an identification value to a voting block of the receiver for each potential type of modulation based on the received signal;
    using a technique in the voting block to determine an actual modulation of the received signal, wherein the technique is based at least on the identification values and depends on a strength of the received signal; and
    deactivating receiver components associated with modulations other than that of the determined modulation.

15. (Original) The method of Claim 14, wherein the identification value includes a normalized correlation value based on characteristics of the potential modulation.

16. (Original) The method of Claim 14, wherein the identification value includes an absolute modulation-specific correlation value.

17. (Cancelled)

18. (Currently Amended) The method of Claim ~~17~~ 14, wherein if the received signal is equal to or less than a predetermined threshold value, thereby characterizing the received signal as weak, then the identification value includes a normalized correlation value based on characteristics of the potential modulation.

19. (Original) The method of Claim 18, wherein if the received signal is greater than the predetermined threshold value, thereby characterizing the received signal as strong or intermediate, then the identification value includes a modulation-specific received signal strength indicator (RSSI).

20. (Original) The method of Claim 19, wherein the technique includes computing a bias value, wherein the bias value adjusts a probability of choosing a particular modulation.

21. (Currently Amended) A system for determining a modulation of a received signal in a receiver, the system comprising:

modulator identifiers for providing identification values for potential types of modulation based on the received signal;

means for determining a strength of the received signal; and

a voting block for determining the modulation, wherein the voting block uses a technique based at least on the identification values and the strength of the received signal.

22. (Original) The system of Claim 21, wherein each of the modulator identifiers includes means for generating a normalized

(SN: 10/698,666)

correlation value based on characteristics of the type of modulation.

23. (Original) The system of Claim 22, wherein each of the modulator identifiers includes means for computing an absolute modulation-specific correlation value.

24. (Cancelled)

25. (Currently Amended) The system of Claim 24 21, wherein the means for determining the strength controls whether the voting block uses the correlation value or the RSSI based on the type of modulation for the identification value.

26. (Original) The system of Claim 25, wherein the means for determining the strength further includes means for determining whether a raw received signal indicator (RSSI) is greater than a threshold RSSI.

27. (Original) The system of Claim 23, wherein the means for computing the absolute modulation-specific correlation includes:
    means for performing a noise floor measurement; and
    means for determining a strength of the received signal above the noise floor measurement.

28. (Original) The system of Claim 27, wherein the means for computing the absolute modulation-specific correlation includes means for adding a bias value, wherein the bias value adjusts a probability of choosing a particular modulation.

(SN: 10/698,666)

29. (Original) The system of Claim 28, further including means for determining an environment of the received signal, wherein the means for determining an environment provides an output to the means for computing the bias value.

30. (Currently Amended) A computer-readable medium embodying a computer software program that when executed by a processor determines for determining a modulation type of a received signal, the computer software program comprising:

code for providing an identification value for each potential type of modulation based on the received signal and a received signal strength; and

code for using a technique to determine the modulation, wherein the technique is based at least on the identification values.

31. (Currently Amended) The computer-readable medium embodying the computer software program of Claim 30, wherein the code for providing the identification value includes code for generating a normalized correlation value based on characteristics of the type of modulation.

32. (Currently Amended) The computer-readable medium embodying the computer software program of Claim 30, wherein the code for providing the identification value further includes code for computing an absolute modulation-specific correlation value.

33. (Cancelled)

34. (Currently Amended) The computer-readable medium embodying the computer software program of Claim 33 30, wherein

(SN: 10/698,666)

if the received signal is equal to or less than a predetermined threshold value, thereby characterizing the received signal as weak, then the code for providing the identification value includes code for generating a normalized correlation value based on characteristics of the type of modulation.

35. (Currently Amended) The computer-readable medium embodying the computer software program of Claim 34, wherein if the received signal is greater than the predetermined threshold value, thereby characterizing the received signal as strong or intermediate, then the code for providing identification value includes a code for computing a modulation-specific received signal strength indicator (RSSI).

36. (Currently Amended) The computer-readable medium embodying the computer software program of Claim 35, wherein the code for computing the RSSI includes:
    code for performing a noise floor measurement; and
    code for determining the strength of the received signal above the noise floor measurement.

37. (Currently Amended) The computer-readable medium embodying the computer software program of Claim 36, further including code for computing a bias value, wherein the bias value adjusts a probability of choosing a particular modulation.

38. (Currently Amended) The computer-readable medium embodying the computer software program of Claim 37, wherein the bias value is based at least on an environment of the received signal.

(SN: 10/698,666)

39. (Currently Amended) The computer-readable medium embodying the computer software program of Claim 35, wherein the code for determining the strength of the received signal includes code for determining whether a raw RSSI is greater than a threshold RSSI, thereby determining whether the strength of the received signal is weak or intermediate.

(SN: 10/698,666)